ABSTRACT

1. *The Object of the invention*: electron sterilizer

2. *The application Branch*: the invention enables its application as a commercial-type compact electron sterilizer for sterilization of food products, medical and biological preparations, medical and biological equipment, and also for disinfecting of water, including the waste waters, agricultural production products (including meat, milk, grain, beans) etc. and is designed to destroy (or inhibit) pathogenic bacteria, viruses, parasites, and fungi which are present in the objects of treatment.

3. *The substance of the invention*: The sterilizer consists of a multi-channel linear induction accelerator (MLIA) 1, with attached to it a block 2 of the outlet devices, and with an irradiation system block 3 attached to the outlet-device block 2. The transport system 4, on which the irradiation (treatment) objects 5 are placed, is positioned under the block 3. The ventilation system 6 is positioned in the way that allows isolation of the irradiation system 3 and transport system 4, and the working field where sterilization takes place from remaining structural elements of MLIA. The lower protection system 7 is placed under the transport system 4 while the upper protection system is placed above the accelerator 1 and the transport system 4.

4. The *alternative realization*: electron sterilizer based on a single-channel induction accelerator.

5. *Technical advantage*: An increase of productivity, compactness, and electromagnetic compatibility, and a technological possibility (in other words, technologic adequacy for the conditions typical for agricultural, food-production and pharmaceutical industries), and an increase of safety of exploitation, besides a decrease of the manufacturing and ex-exploitation costs and overall simplification of the (sterilizer's) structure.